**Bachelor of Science in Chemistry- ACS Certified Degree Requirements**

(For students declaring chemistry as their major Spring quarter 2010 or later)

1) **Mathematics (MATH)**
   a) Calculus or Honors Calculus
   - 124 (5 credits)
   - 125 (5)
   - 126 (5)
   - 134 (5)
   - 135 (5)
   - 136 (5)
   b) Two additional math courses above the 200 level are required if the regular calculus sequence is taken. Recommended are:
   - 307 (3) or AMATH 351 (3)
   - 308 (3) or AMATH 352 (3)

2) **Physics (PHYS)**
   a) Calculus-based or Algebra-based
   - 121 (5)
   - 122 (5)
   - 123 (5)
   - 114 (4)
   - 115 (4)
   - 116 (4)
   The calculus-based series is recommended. NOTE: One credit lab is included with each course in the calculus-based physics series.
   b) One credit of laboratory
   - 117, 118, 119 (1)

3) **General Chemistry (CHEM)**
   Regular or Honors
   - 142 (5)
   - 145 (5)
   - 152 (5)
   - 155 (5)
   - 162 (5)
   - 165 (5)

4) **Analytical Laboratory (CHEM)**
   - 321 Quantitative Analysis (5)
   - 426 Instrumental Analysis (3)

5) **Inorganic Chemistry (CHEM)**
   - 312 Lecture (3)
   - 317 Laboratory (4)
   - 416 Transition Metals Lecture (3)
   Students completing 155 and 165 are exempt from CHEM 312.

6) **Organic Chemistry (CHEM)**
   a) Regular or Honors
   - 237 (4)
   - 238* (4)
   - 239 (4)
   - 335 (4)
   - 336 (4)
   - 337 (4)
   b) Laboratory
   - 241 (3)
   - 242 (3)
   - 346 (3)
   - 347 (3)
   *Organic laboratory begins with 2nd organic lecture.

7) **Physical Chemistry (CHEM)**
   - 455 (3)
   - 456 (3)
   - 457 (3)
   - 461 (3)

8) **Biochemistry (BIOC)**
   - 405 (3) *

9) **Advanced Chemistry**
   The two parts of this requirement must total a minimum of 5 credits:
   a) Choose one 400 level lab from the following:
      - 462 Organic Synthesis (2 or 3)
      - 463 Spectroscopy (2)
      - 464 Computers in Data Acquisition & Analysis (3)
      - 465 Computations in Chemistry (3)
   b) Additional 400-level CHEM/BIOC courses (EXCEPT CHEM 498), not previously mentioned, taken for a numerical grade.

   Honors students only may apply Chem 399 or 499 for Part B.

   *Students should contact chemistry advising regarding prerequisite alternatives for BIOC 405.*